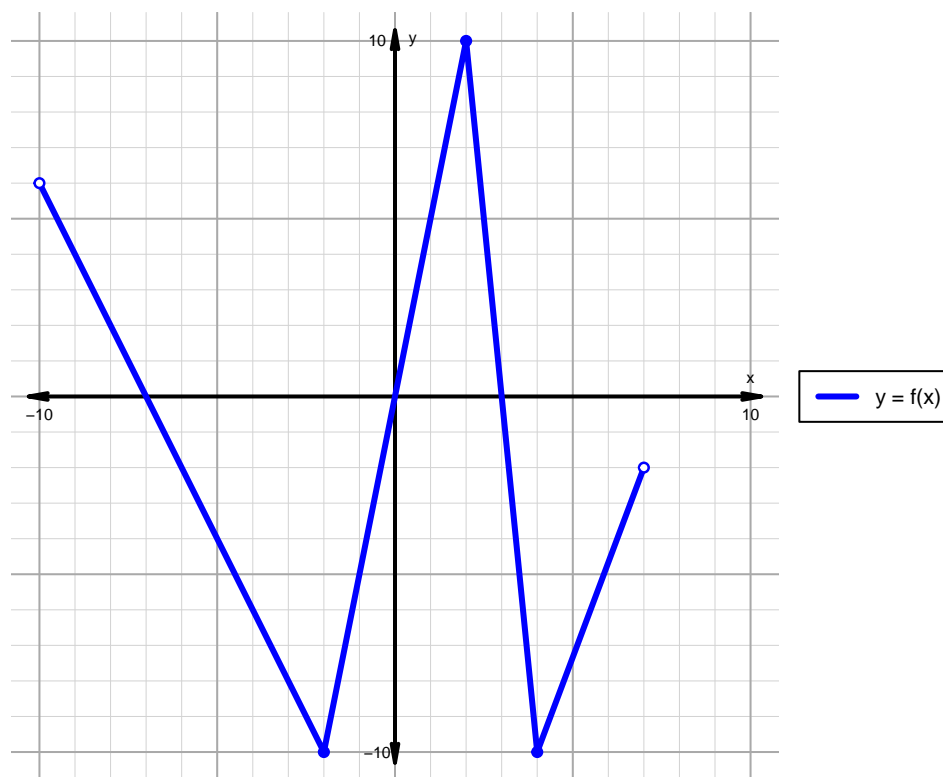


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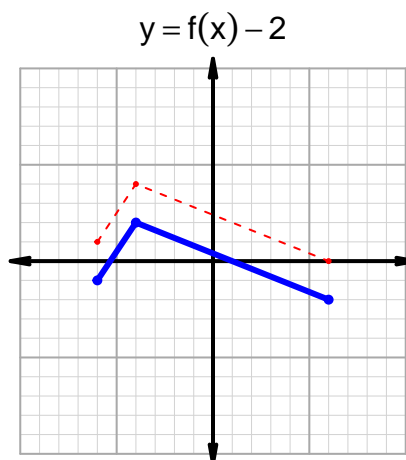
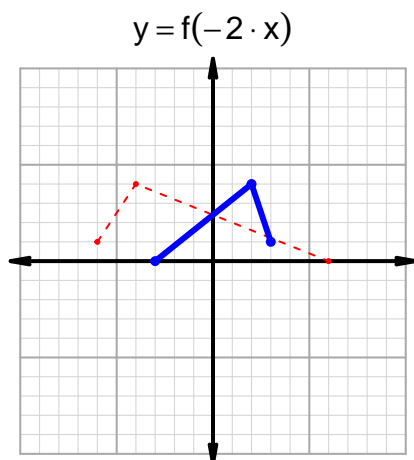
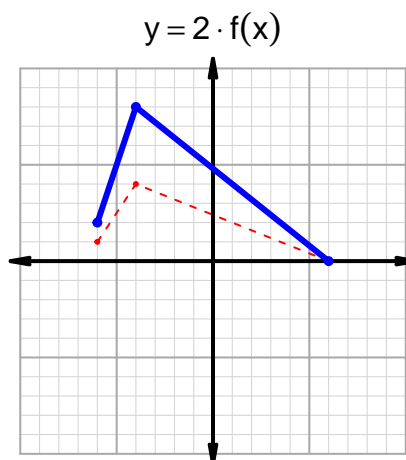
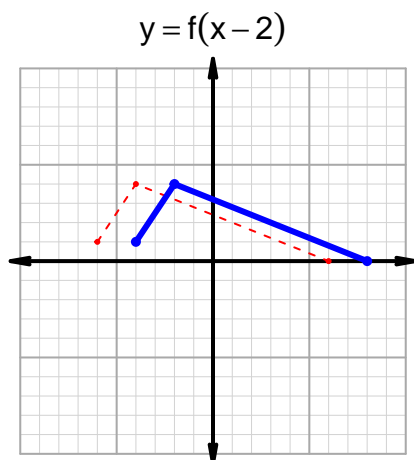
Intervals, Transformations, and Slope Solution (version 3)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-10, -7) \cup (0, 3)$
Negative	$(-7, 0) \cup (3, 7)$
Increasing	$(-2, 2) \cup (4, 7)$
Decreasing	$(-10, -2) \cup (2, 4)$
Domain	$(-10, 7)$
Range	$(-10, 10)$

Intervals, Transformations, and Slope Solution (version 3)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 70$ and $x_2 = 88$. Express your answer as a reduced fraction.

x	$g(x)$
18	88
70	18
88	99
99	70

$$\frac{f(88) - f(70)}{88 - 70} = \frac{99 - 18}{88 - 70} = \frac{81}{18}$$

The greatest common factor of 81 and 18 is 9. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{9}{2}$$